



16336-27PC.ST25.txt
SEQUENCE LISTING

<110> UNIVERSITY OF WASHINGTON

LIEBER, Andre

SHAYAKHMETOV, Dmitry M.

<120> CAPSID-MODIFIED ADENOVIRUS VECTORS AND METHODS OF USING THE SAME

<130> 16336-27PC

<140> PCT/US04/

<141> 2004-05-03

<150> US 60/466,858

<151> 2003-05-01

<160> 8

<170> PatentIn version 3.1

<210> 1

<211> 185

<212> PRT

<213> adenovirus

<400> 1

Asp Lys Leu Thr Leu Trp Thr Thr Pro Ala Pro Ser Pro Asn Cys Arg
1 5 10 15

Leu Asn Ala Glu Lys Asp Ala Lys Leu Thr Leu Val Leu Thr Lys Cys
20 25 30

16336-27PC.ST25.txt

Gly Ser Gln Ile Leu Ala Thr Val Ser Val Leu Ala Val Lys Gly Ser
35 40 45

Leu Ala Pro Ile Ser Gly Thr Val Gln Ser Ala His Leu Ile Ile Arg
50 55 60

Phe Asp Glu Asn Gly Val Leu Leu Asn Asn Ser Phe Leu Asp Pro Glu
65 70 75 80

Tyr Trp Asn Phe Arg Asn Gly Asp Leu Thr Glu Gly Thr Ala Tyr Thr
85 90 95

Asn Ala Val Gly Phe Met Pro Asn Leu Ser Ala Tyr Pro Lys Ser His
100 105 110

Gly Lys Thr Ala Lys Ser Asn Ile Val Ser Gln Val Tyr Leu Asn Gly
115 120 125

Asp Lys Thr Lys Pro Val Thr Leu Thr Ile Thr Leu Asn Gly Thr Gln
130 135 140

Glu Thr Gly Asp Thr Thr Pro Ser Ala Tyr Ser Met Ser Phe Ser Trp
145 150 155 160

Asp Trp Ser Gly His Asn Tyr Ile Asn Glu Ile Phe Ala Thr Ser Ser
165 170 175

Tyr Thr Phe Ser Tyr Ile Ala Gln Glu
180 185

<210> 2

<211> 185

<212> PRT

<213> adenovirus

<400> 2

Asp Lys Leu Thr Leu Trp Thr Thr Pro Asp Pro Ser Pro Asn Cys Arg
1 5 10 15

Ile His Ser Asp Asn Asp Cys Lys Phe Thr Leu Val Leu Thr Lys Cys
20 25 30

16336-27PC.ST25.txt

Gly Ser Gln Val Leu Ala Thr Val Ala Ala Leu Ala Val Ser Gly Asp
35 40 45

Leu Ser Ser Met Thr Gly Thr Val Pro Ser Val Ser Ile Phe Leu Arg
50 55 60

Phe Asp Gln Asn Gly Val Leu Met Glu Asn Ser Ser Leu Lys Lys His
65 70 75 80

Tyr Trp Asn Phe Arg Asn Gly Asn Ser Thr Asn Ala Asn Pro Tyr Thr
85 90 95

Asn Ala Val Gly Phe Met Pro Asn Leu Leu Ala Tyr Pro Lys Thr Gln
100 105 110

Ser Gln Thr Lys Asn Asn Ile Val Ser Gln Val Tyr Leu His Gly Asp
115 120 125

Lys Thr Lys Pro Met Ile Leu Thr Ile Thr Leu Asn Gly Thr Ser Glu
130 135 140

Ser Thr Glu Thr Ser Glu Val Ser Thr Tyr Ser Met Ser Phe Thr Trp
145 150 155 160

Ser Trp Glu Ser Gly Lys Tyr Thr Glu Thr Phe Ala Thr Asn Ser
165 170 175

Tyr Thr Phe Ser Tyr Ile Ala Gln Glu
180 185

<210> 3

<211> 182

<212> PRT

<213> adenovirus

<400> 3

Asp Pro Leu Thr Leu Trp Thr Pro Asp Pro Pro Pro Asn Cys Ser
1 5 10 15

Leu Ile Gln Glu Leu Asp Ala Lys Leu Thr Leu Cys Leu Thr Lys Asn

Gly Ser Ile Val Asn Gly Ile Val Ser Leu Val Gly Val Lys Gly Asn
 35 40 45

Leu Leu Asn Ile Gln Ser Thr Thr Thr Val Gly Val His Leu Val
 50 55 60

Phe Asp Glu Gln Gly Arg Leu Ile Thr Ser Thr Pro Thr Ala Leu Val
 65 70 75 80

Pro Gln Ala Ser Trp Gly Tyr Arg Gln Gly Gln Ser Val Ser Thr Asn
 85 90 95

Thr Val Thr Asn Gly Leu Gly Phe Met Pro Asn Val Ser Ala Tyr Pro
 100 105 110

Arg Pro Asn Ala Ser Glu Ala Lys Ser Gln Met Val Ser Leu Thr Tyr
 115 120 125

Leu Gln Gly Asp Thr Ser Lys Pro Ile Thr Met Lys Val Ala Phe Asn
 130 135 140

Gly Ile Thr Ser Leu Asn Gly Tyr Ser Leu Thr Phe Met Trp Ser Gly
 145 150 155 160

Leu Ser Asn Tyr Ile Asn Gln Pro Phe Ser Thr Pro Ser Cys Ser Phe
 165 170 175

Ser Tyr Ile Thr Gln Glu
 180

<210> 4

<211> 182

<212> PRT

<213> adenovirus

<400> 4

Asp Pro Leu Thr Leu Trp Thr Pro Asp Pro Pro Pro Asn Cys Thr
 1 5 10 15

16336-27PC.ST25.txt

Leu	Arg	Gln	Glu	Leu	Asp	Ala	Lys	Leu	Thr	Leu	Cys	Leu	Thr	Lys	Asn
20								25					30		

Glu	Ser	Ile	Val	Asn	Gly	Ile	Val	Ser	Leu	Ile	Gly	Val	Lys	Gly	Asp
35						40						45			

Leu	Leu	His	Ile	Gln	Pro	Thr	Thr	Thr	Val	Gly	Leu	His	Leu	Val	
50					55				60						

Phe	Asp	Arg	Gln	Gly	Arg	Leu	Val	Thr	Thr	Thr	Pro	Thr	Ala	Leu	Val
65					70			75					80		

Pro	Gln	Ala	Ser	Trp	Gly	Tyr	Lys	Gln	Gly	Gln	Ser	Val	Ser	Ser	Ser
							85		90				95		

Ala	Val	Ala	Asn	Ala	Leu	Gly	Phe	Met	Pro	Asn	Val	Ser	Ala	Tyr	Pro
							100		105				110		

Arg	Pro	Asn	Ala	Gly	Glu	Ala	Lys	Ser	Gln	Met	Leu	Ser	Gln	Thr	Tyr
							115		120				125		

Leu	Gln	Gly	Asp	Thr	Thr	Lys	Pro	Ile	Thr	Met	Lys	Val	Val	Phe	Asn
						130		135			140				

Gly	Asn	Ala	Thr	Val	Asp	Gly	Tyr	Ser	Leu	Thr	Phe	Met	Trp	Thr	Gly
						145		150			155		160		

Val	Ser	Asn	Tyr	Leu	Asn	Gln	Gln	Phe	Ser	Thr	Pro	Ser	Cys	Ser	Phe
							165		170				175		

Ser	Tyr	Ile	Ala	Gln	Glu										
				180											

<210> 5

<211> 185

<212> PRT

<213> adenovirus

<400> 5

Asp	Lys	Arg	Thr	Leu	Trp	Thr	Thr	Pro	Asp	Thr	Ser	Pro	Asn	Cys	Lys
1				5				10				15			

16336-27PC.ST25.txt

Ile Asp Gln Asp Lys Asp Ser Lys Leu Thr Leu Val Leu Thr Lys Cys
20 25 30

Gly Ser Gln Ile Leu Ala Asn Val Ser Leu Ile Val Val Asp Gly Lys
35 40 45

Tyr Lys Ile Ile Asn Asn Asn Thr Gln Pro Ala Leu Lys Gly Phe Thr
50 55 60

Ile Lys Leu Leu Phe Asp Glu Asn Gly Val Leu Met Glu Ser Ser Asn
65 70 75 80

Leu Gly Lys Ser Tyr Trp Asn Phe Arg Asn Glu Asn Ser Ile Met Ser
85 90 95

Thr Ala Tyr Glu Lys Ala Ile Gly Phe Met Pro Asn Leu Val Ala Tyr
100 105 110

Pro Lys Pro Thr Ala Gly Ser Lys Lys Tyr Ala Arg Asp Ile Val Tyr
115 120 125

Gly Asn Ile Tyr Leu Gly Gly Lys Pro Asp Gln Pro Val Thr Ile Lys
130 135 140

Thr Thr Phe Asn Gln Glu Thr Gly Cys Glu Tyr Ser Ile Thr Phe Asp
145 150 155 160

Phe Ser Trp Ala Lys Thr Tyr Val Asn Val Glu Phe Glu Thr Thr Ser
165 170 175

Phe Thr Phe Ser Tyr Ile Ala Glu Gln
180 185

<210> 6

<211> 194

<212> PRT

<213> adenovirus

<400> 6

Ser Ile Asn Thr Leu Trp Thr Gly Ile Asn Pro Pro Pro Asn Cys Gln
1 5 10 15

16336-27PC.ST25.txt

Ile Val Glu Asn Thr Asn Thr Asn Asp Gly Lys Leu Thr Leu Val Leu
20 25 30

Val Lys Asn Gly Gly Leu Val Asn Gly Tyr Val Ser Leu Val Gly Val
35 40 45

Ser Asp Thr Val Asn Gln Met Phe Thr Gln Lys Thr Ala Asn Ile Gln
50 55 60

Leu Arg Leu Tyr Phe Asp Ser Ser Gly Asn Leu Leu Thr Glu Glu Ser
65 70 75 80

Asp Leu Lys Ile Pro Leu Lys Asn Lys Ser Ser Thr Ala Thr Ser Glu
85 90 95

Thr Val Ala Ser Ser Lys Ala Phe Met Pro Ser Thr Thr Ala Tyr Pro
100 105 110

Phe Asn Thr Thr Thr Arg Asp Ser Glu Asn Tyr Ile His Gly Ile Cys
115 120 125

Tyr Tyr Met Thr Ser Tyr Asp Arg Ser Leu Phe Pro Leu Asn Ile Ser
130 135 140

Ile Met Leu Asn Ser Arg Met Ile Ser Ser Asn Val Ala Tyr Ala Ile
145 150 155 160

Gln Phe Glu Trp Asn Leu Asn Ala Ser Glu Ser Pro Glu Ser Asn Ile
165 170 175

Ala Thr Leu Thr Thr Ser Pro Phe Phe Ser Tyr Ile Thr Glu Asp
180 185 190

Asp Asn

<210> 7

<211> 196

<212> PRT

<213> adenovirus

16336-27PC.ST25.txt

<400> 7

Asn Ile Asn Thr Leu Trp Thr Gly Ile Asn Pro Thr Glu Ala Asn Cys
1 5 10 15

Gln Met Met Asp Ser Ser Glu Ser Asn Asp Cys Lys Leu Ile Leu Thr
20 25 30

Leu Val Lys Thr Gly Ala Leu Val Thr Ala Phe Val Tyr Val Ile Gly
35 40 45

Val Ser Asn Asn Phe Asn Met Leu Thr Thr Tyr Arg Asn Ile Asn Phe
50 55 60

Thr Ala Glu Leu Phe Phe Asp Ser Ala Gly Asn Leu Leu Thr Ser Leu
65 70 75 80

Ser Ser Leu Lys Thr Pro Leu Asn His Lys Ser Gly Gln Asn Met Ala
85 90 95

Thr Gly Ala Ile Thr Asn Ala Lys Ser Phe Met Pro Ser Thr Thr Ala
100 105 110

Tyr Pro Phe Asn Asn Asn Ser Arg Glu Lys Glu Asn Tyr Ile Tyr Gly
115 120 125

Thr Cys His Tyr Thr Ala Ser Asp His Thr Ala Phe Pro Ile Asp Ile
130 135 140

Ser Val Met Leu Asn Gln Arg Ala Ile Arg Ala Asp Thr Ser Tyr Cys
145 150 155 160

Ile Arg Ile Thr Trp Ser Trp Asn Thr Gly Asp Ala Pro Glu Gly Gln
165 170 175

Thr Ser Ala Thr Thr Leu Val Thr Ser Pro Phe Thr Phe Tyr Tyr Ile
180 185 190

Arg Glu Asp Asp
195

<210> 8

<211> 12

16336-27PC.ST25.txt

<212> PRT

<213> adenovirus

<400> 8

Ser Lys Cys Asp Cys Arg Gly Glu Cys Phe Cys Asp
1 5 10